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 TI Manufacture of acicular ferritic stainless steels resistant to
 stress corrosion cracking
 IN Nomura, Nobuji; Ogawa, Hiroyuki; Takahashi, Akihiko
 PA Nippon Steel Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
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 DT Patent
 LA Japanese
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PI	JP 01172516	A	19890707	JP 1987-330445	19871226 <--
	JP 07110970	B	19951129		
PRAI	JP 1987-330445		19871226		

AB The stainless steels especially for natural gas pipelines and containing
 C <0.15, Si 0.1-0.5, Mn 0.2-1.0, Cr 9-16.0, P <0.02, S <0.02, Al
 0.01-0.05, N 0.01-0.25, and optionally Ni 0.2-2.5, Mo 0.2-1.5, V 0.02-1.5,
 Ti 0.001-0.2, and/or Nb 0.02-1.5% with Cr ≥10C + 30N + 8 are
 manufactured by heating at 950-1250°, hot rolling with 60-95%
 draft at finish temperature of ≥750°, cooling to .apprx.20°
 at above air cooling rate, and tempering at 400-<750° for 15-60 min
 to give ≥80% acicular ferritic structure. The invention
 stainless steels have yield strength ≥94.5 kg/mm2 and their
 resistances to sulfide and CO2 stress corrosion cracking are superior to
 those of the conventional stainless steels.